F. Conclusion

Applicant submits that all claims are in condition for allowance. Favorable reconsideration is respectfully requested.

A Fee Authorization is enclosed to cover fees for a Request for Continued Examination and a one-month extension of time. If an additional extension of time is required, Applicant hereby requests the appropriate extension of time. If any additional fees are required or if any fees have been overpaid, please appropriately charge or credit those fees to Meyertons, Hood, Kivlin, Kowert & Goetzel, P.C. Deposit Account Number 50-1505/5659-06300/EBM.

Respectfully submitted,

David W. Quimby

David W. Quimby
Reg. No. 39,338

Attorney for Applicant

MEYERTONS, HOOD, KIVLIN, KOWERT & GOETZEL, P.C.
P.O. Box 398
Austin, Texas 78767-0398
(512) 853-8800 (voice)
(512) 853-8801 (facsimile)

Date: April 1, 2003

Marked-Up Version of Amendments Submitted With Request For Continued Examination

2430. (amended) The method of claim 2424, wherein ~~the one or more~~at least one of the heaters comprises a natural distributed combustors.

2433. (amended) The method of claim 2424, wherein providing heat from the one or more heaters to at least the portion of the formation comprises:

heating a selected volume (V) of the coal formation from the one or more heaters, wherein the formation has an average heat capacity (C_v), and wherein the heating pyrolyzes at least some hydrocarbons within the selected volume of the formation; and

wherein heating energy/day *(Pwr)* provided to the selected volume is equal to or less than $h*V*C_v*\rho_B$, wherein ρ_B is formation bulk density, and wherein an average heating rate of the formation (h) is about 10 °C/day.

2435. (amended) The method of claim 2424, wherein allowing the heat to transfer to the part of the formation ~~providing heat from the one or more heaters comprises heating~~ heats the part of the formation to increase ~~such that~~ a thermal conductivity of at least a portion of the part of the formation ~~is~~ to greater than about 0.5 W/(m °C).

2447. (amended) The method of claim 2424, wherein the produced mixture comprises a non-condensable component, wherein the non-condensable component comprises molecular hydrogen, wherein the molecular hydrogen is greater than about 10 % by volume of the non-condensable component at 25 °C and one atmosphere absolute pressure, and wherein the molecular hydrogen is less than about 80 % by volume of the non-condensable component at 25 °C and one atmosphere absolute pressure.

2457. (amended) The method of claim 2424, wherein allowing the heat to transfer ~~comprises increasing~~increases a permeability of a majority of the part of the formation to greater than about 100 millidarcy.

2458. (amended) The method of claim 2424, wherein allowing the heat to transfer ~~comprises substantially uniformly increasing~~increases a permeability of a majority of the part of the formation such that the permeability of the majority of the part is substantially uniform.

5151. (amended) The method of claim 2424, wherein the heat is allowed to transfer from one or more of the heaters to at least a portion of the part of the formation ~~comprises~~ to establish a pyrolysis zone in the part of the formation.

5152. (amended) The method of claim 2424, wherein the heat is allowed to transfer from one or more of the heaters to at least a portion of the part of the formation ~~comprises~~ to establish a pyrolysis zone proximate to and/or surrounding at least one of the one or more heaters in the part of the formation.

5156. (amended) The method of claim 5154, wherein the heat is allowed to transfer from one or more of the heaters to at least a portion of the part of the formation ~~comprises~~ to establish a pyrolysis zone in the part of the formation.

5157. (amended) The method of claim 5154, wherein the heat is allowed to transfer from one or more of the heaters to at least a portion of the part of the formation ~~comprises~~ to establish a pyrolysis zone proximate to and/or surrounding at least one of the one or more heaters in the part of the formation.

5161. (amended) The method of claim 5154, wherein at least one of the ~~one or more~~ heaters comprises an electrical heater~~s~~.

5162. (amended) The method of claim 5154, wherein at least one of the ~~one or more~~ heaters comprises a surface burner~~s~~.

5163. (amended) The method of claim 5154, wherein at least one of the ~~one or more~~ heaters comprises a flameless distributed combustor~~s~~.

5164. (amended) The method of claim 5154, wherein at least one of the ~~one or more~~ heaters comprises a natural distributed combustors.

5167. (amended) The method of claim 5154, wherein providing heat from the one or more heaters to at least the portion of the formation comprises:

heating a selected volume (V) of the coal formation from the one or more heaters, wherein the formation has an average heat capacity (C_v), and wherein the heating pyrolyzes at least some hydrocarbons within the selected volume of the formation; and

wherein heating energy/day *(Pwr)* provided to the selected volume is equal to or less than $h*V*C_v*\rho_B$, wherein ρ_B is formation bulk density, and wherein an average heating rate of the formation (h) is about 10 °C/day.

5169. (amended) The method of claim 5154, wherein allowing the heat to transfer to the part of the formation heats ~~providing heat from the one or more heaters comprises heating~~ the part of the formation ~~such that~~to increase a thermal conductivity of at least a portion of the part of the formation ~~is~~ to greater than about 0.5 W/(m °C).

5181. (amended) The method of claim 5154, wherein the produced mixture comprises a non-condensable component, wherein the non-condensable component comprises molecular hydrogen, wherein the molecular hydrogen is greater than about 10 % by volume of the non-condensable component at 25 °C and one atmosphere absolute pressure, and wherein the molecular hydrogen is less than about 80 % by volume of the non-condensable component at 25 °C and one atmosphere absolute pressure.

5189. (amended) The method of claim 5154, further comprising:

providing hydrogen (H_2) to the ~~heated section~~part of the formation to hydrogenate hydrocarbons within the ~~section~~part of the formation; and

heating a portion of the ~~section~~ part of the formation with heat from hydrogenation.

5191. (amended) The method of claim 5154, wherein allowing the heat to transfer ~~comprises increasing~~ increases a permeability of a majority of the part of the formation to greater than about 100 millidarcy.

5192. (amended) The method of claim 5154, wherein allowing the heat to transfer ~~comprises substantially uniformly increasing~~increases a permeability of a majority of the part of the formation such that the permeability of the majority of the part is substantially uniform.

5198. (amended) The method of claim 5196, wherein the heat is allowed to transfer from one or more of the heaters to at least a portion of the part of the formation ~~comprises~~ to establish a pyrolysis zone in the part of the formation.

5199. (amended) The method of claim 5196, wherein the heat is allowed to transfer from one or more of the heaters to at least a portion of the part of the formation ~~comprises~~ to establish a pyrolysis zone proximate to and/or surrounding at least one of the one or more heaters in the part of the formation.

5201. (amended) The method of claim 5196, wherein at least one of the one or more ~~heat sources~~heaters comprises a natural distributed combustors~~.~~

5204. (amended) The method of claim 5196, wherein allowing the heat to transfer ~~comprises substantially uniformly increasing~~increases a permeability of a majority of the part of the formation such that the permeability of the majority of the part is substantially uniform.

5205. (amended) The method of claim 5196, wherein providing heat from the one or more heaters to at least the portion of the formation comprises:

heating a selected volume (V) of the coal formation from the one or more heaters, wherein the formation has an average heat capacity (C_v), and wherein the heating pyrolyzes at least some hydrocarbons within the selected volume of the formation; and

wherein heating energy/day (*Pwr*) provided to the selected volume is equal to or less than $h*V*C_v*\rho_B$, wherein ρ_B is formation bulk density, and wherein heating rate (h) is about 10 °C/day.